

RF Exposure Evaluation Report

Applicant Checkpoint Systems, Inc.
FCC ID DO4NS45
Product EAS RF System
Brand Checkpoint
Model NEO V3.0 REMOTE ELECTRONICS CONTROLLER
NS45
Report No. EFTA26050097-IE-10-M1V3
Issue Date August 22, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 §1.1310, §2.1091** and **KDB 447498 D01 General RF Exposure Guidance v06**. The test results show that the equipment tested can demonstrate the compliance with the requirements as documented in this report.



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Version	Revision Description	Issue Date
Rev.0	Initial issue of report.	July 7, 2026
Rev.1	Updated information.	July 9, 2026
Rev.2	Updated information.	August 17, 2026
Rev.3	Updated information.	August 22, 2026
Note: This revised report (Report No.: EFTA26050097-IE-10-M1V3) supersedes and replaces the previously issued report (Report No.: EFTA26050097-IE-10-M1V2). Please discard or destroy the previously issued report and dispose of it accordingly.		

Table of Contents

1	Test Laboratory	4
1.1	Notes of the Test Report.....	4
1.2	Test Facility	4
1.3	Testing Location.....	4
2	General Description of Equipment Under Test	5
2.1	Applicant and Manufacturer Information	5
2.2	General Information	5
3	Evaluation Standard	7
4	Max Tune up and EIRP	8
5	MPE Limit	11
6	RF Exposure Evaluation Result for EAS RF Transmitters	13
7	Simultaneous transmission Evaluation Result.....	14
	ANNEX A: The EUT Appearance	15

1 Test Laboratory

1.1 Notes of the Test Report

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1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
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2 General Description of Equipment Under Test

2.1 Applicant and Manufacturer Information

Applicant	Checkpoint Systems, Inc.
Applicant address	101 Wolf Drive, Thorofare, New Jersey 08086, USA
Manufacturer	Checkpoint Systems, Inc.
Manufacturer address	101 Wolf Drive, Thorofare, New Jersey 08086, USA

2.2 General Information

EUT Description	
Model	NEO V3.0 REMOTE ELECTRONICS CONTROLLER NS45
Lab internal SN	260529-28-002
Hardware Version	REV00
Software Version	v5.14r/3.2.3
Antenna Type	External Antenna
Tested Frequency Range(s)	7.825, 7.975, 8.125, 8.275, 8.425, 8.575 MHz
	Bluetooth: 2402~2480 MHz
	Wi-Fi 2.4G: 2412~2462 MHz
	Wi-Fi 5GHz (U-NII-1): 5150 ~ 5250 MHz
	Wi-Fi 5GHz (U-NII-3): 5725~5850 MHz
Support Units	
Wi-Fi dongle	Manufacturer: LM Tech Model: LM808
NFC dongle	Manufacturer: Checkpoint Model: BKT MOUNT LED & SNDR NS45
EUT Accessory	
ALARM BOX	Manufacturer: Checkpoint Model: NEO V3.0 ALARM BOX
ALARM TOWER	Manufacturer: Checkpoint Model: NS45 ALARM TOWER
Sound & Light Kit	Manufacturer: Checkpoint Model: BKT MOUNT LED & SNDR NS45
Auxiliary Test Equipment	
Adapter	Manufacturer: Checkpoint Model: DVPYSUS50W240210

Output: 24.0V $\overline{\underline{\quad}}$ 2.1A

Note:

1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.
2. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

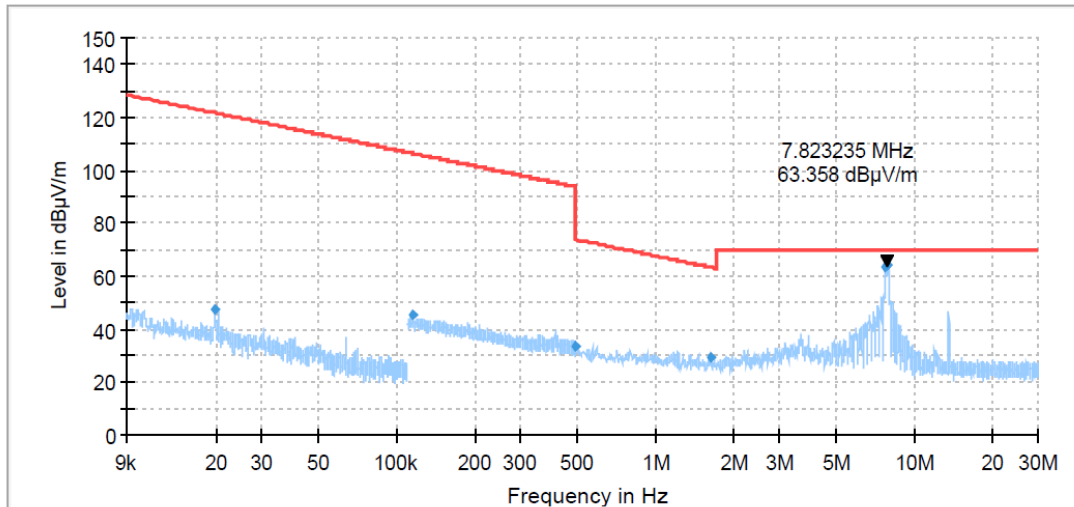
The EUT consists of the NS45 Bumper Antenna, the NS45 Inhibit Antenna, and the NEO V3.0 Remote Electronics Controller. The EAS transmitter mainboard is located inside the NEO V3.0 Remote Electronics Controller.

3 Evaluation Standard

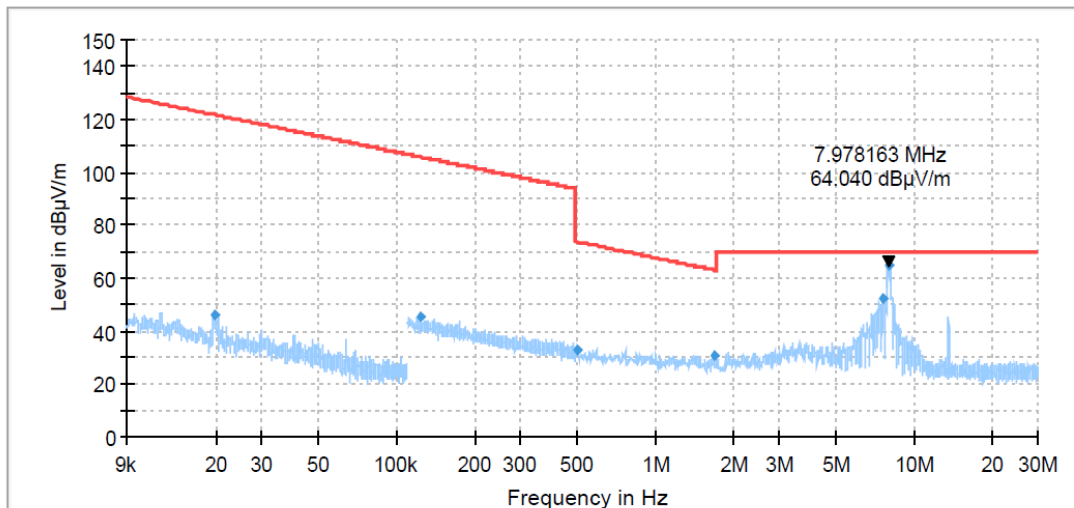
KDB 447498 D01 General RF Exposure Guidance v06
FCC 47 CFR Part 1 1.1310

4 Max Tune up and EIRP

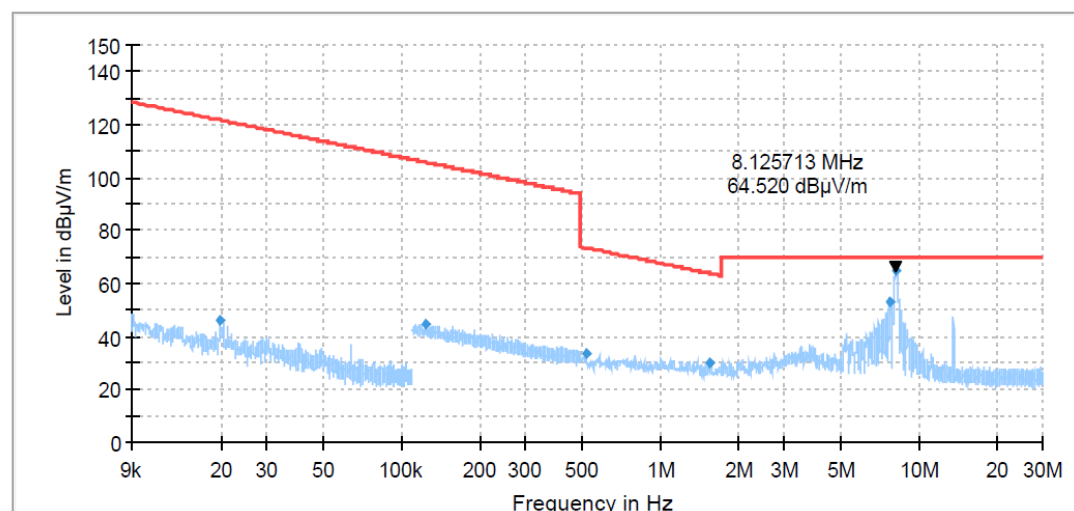
7.825 MHz



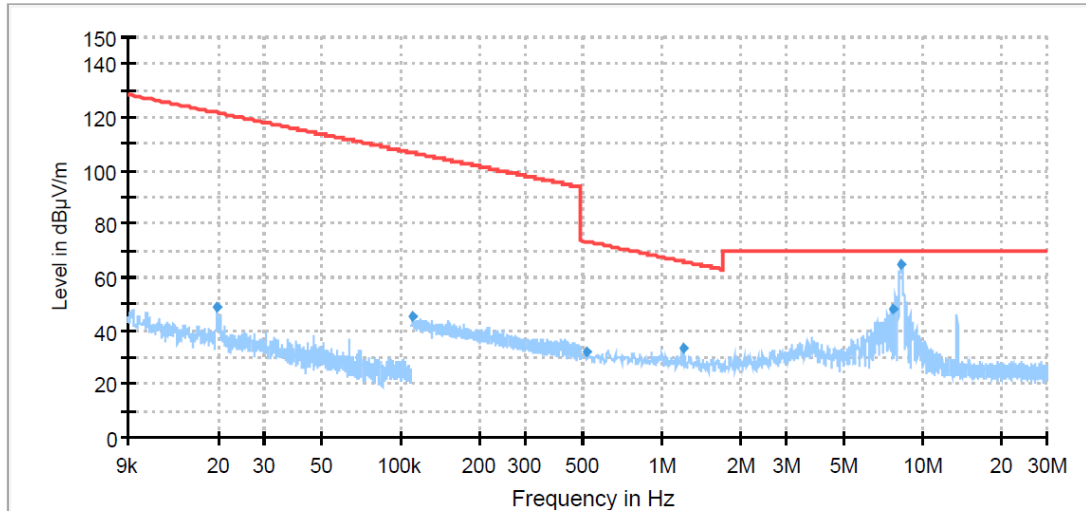
7.975 MHz



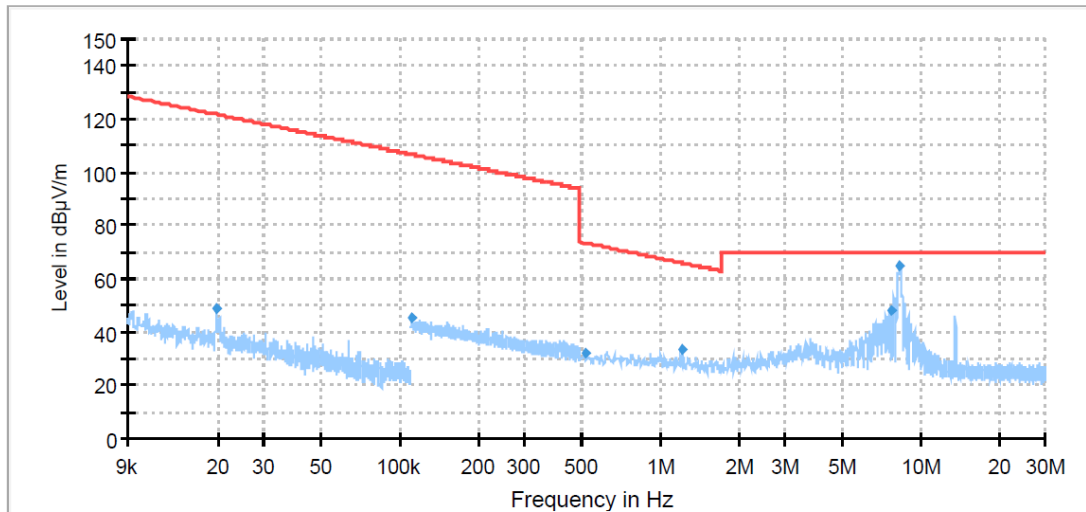
8.125 MHz



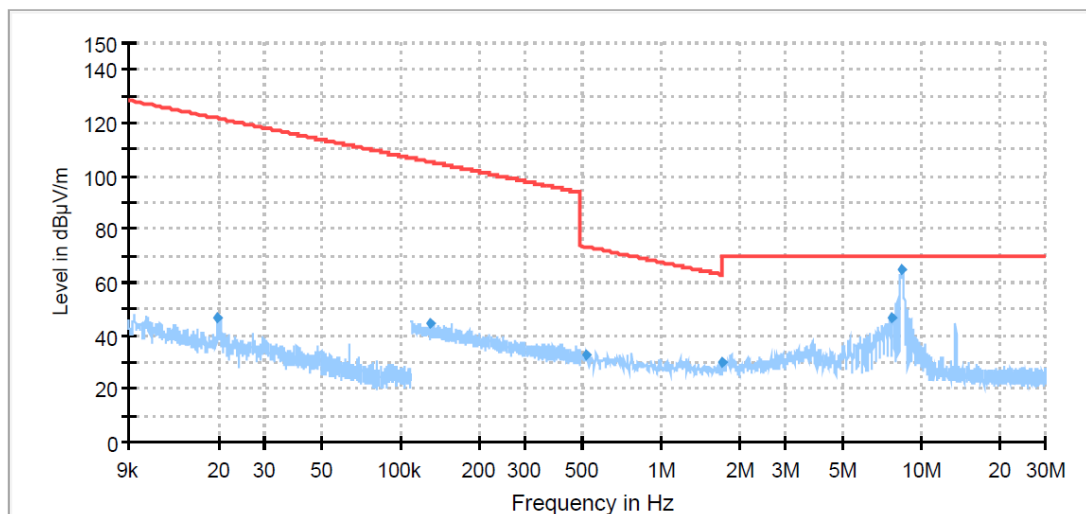
8.275 MHz



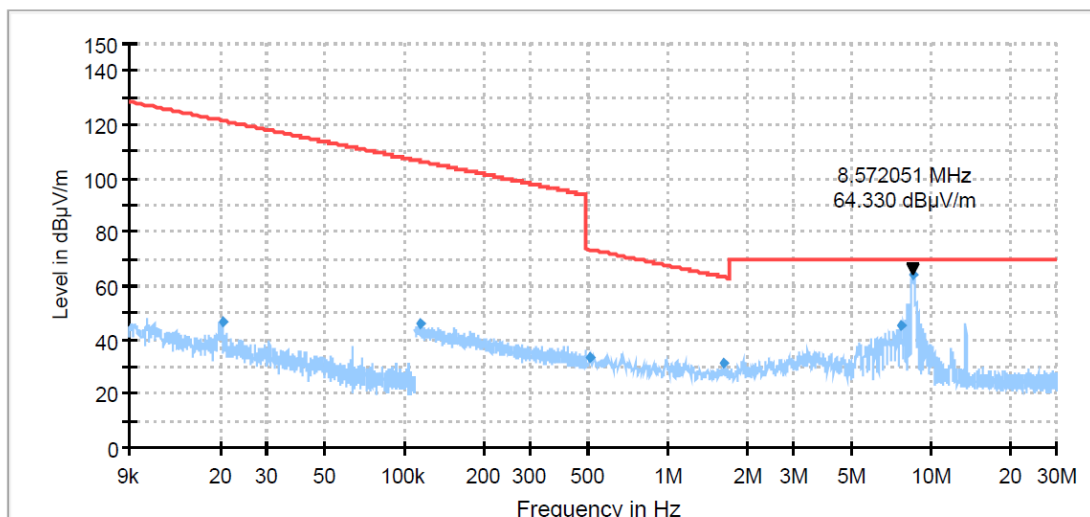
8.275 MHz



8.425 MHz



8.575 MHz



Note: Test data comes from RF report and please refer to the RF report for testing related information.

Carrier Frequency (MHz)	Max.E-field strength (dBμV/m)	EIRP (dBm)	Tune up (dBm)
7.825	63.358	-31.84	<1.0
7.975	64.040	-31.16	<1.0
8.125	64.520	-30.68	<1.0
8.275	64.890	-30.31	<1.0
8.425	65.100	-30.10	<1.0
8.575	64.330	-30.87	<1.0

Note:

1. EIRP = Max.E-field strength @ 3m – 95.2, Gain= 0 dBi
2. Maximum Output Power (Tune up) = EIRP - Gain

5 MPE Limit

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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(i) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE

0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6

(ii) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. * = Plane-wave equivalent power density.*

Note1. Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The maximum permissible exposure for 1.34~30MHz is $\ast(180/f^2)$ is 1.0. So

Frequency Range (MHz)	The Maximum Permissible Exposure (mW/cm ²)
7.825	2.940
7.975	2.830
8.125	2.727
8.275	2.629
8.425	2.536
8.575	2.448

6 RF Exposure Evaluation Result for EAS RF Transmitters

RF exposure evaluation method is based on KDB 447498 D01, this calculation is based on the conducted power, maximum power and antenna gain with provides the minimum separation distance. The formula shown below is from OET Bulletin 65 Edition 97-01 Per KDB 447498 D01:

$$S = PG / 4\pi R^2$$

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Frequency Range (MHz)	Maximum EIRP (dBm)	PG (mW)	Calculation Result (mW/cm ²)	Limit Value (mW/cm ²)	Calculation Result/ Limit Value
7.825	-31.84	0.0007	<0.000	2.940	<0.00
7.975	-31.16	0.0008	<0.000	2.830	<0.00
8.125	-30.68	0.0009	<0.000	2.727	<0.00
8.275	-30.31	0.0009	<0.000	2.629	<0.00
8.425	-30.10	0.0010	<0.000	2.536	<0.00
8.575	-30.87	0.0008	<0.000	2.448	<0.00
Note: R = 20cm $\pi = 3.1416$ The MPE Ratio = Mac Result÷Limit Value					

7 Simultaneous transmission Evaluation Result

The NEO V3.0 system incorporates Wi-Fi 2.4 GHz, Wi-Fi 5 GHz, Bluetooth and NFC modules, as well as the EAS RF Transmitter (transmit frequencies: 7.825, 7.975, 8.125, 8.275, 8.425, 8.575 MHz).

Per KDB 447498 D01 General RF Exposure Guidance v06:

When RF exposure test exclusion does not apply, simultaneous transmission evaluation is required for mixed mobile device and portable device exposure conditions. For each simultaneous transmission configuration, the sum of the MPE ratios for the simultaneously transmitting antennas operating in mobile device exposure conditions must be determined according to the calculated/estimated, numerically modeled or measured field strengths or power density. For each simultaneous transmission configuration, the enlarged zoom scan measurement and volume scan post-processing procedures in KDB Publication 865664 D01 must be applied to test the simultaneously transmitting antennas operating in portable device exposure conditions. The $[(\text{highest measured simultaneous transmission SAR, adjusted for maximum tune-up tolerance}) / 1.6 \text{ W/kg}] + [\sum \text{ of MPE ratios}]$ must be ≤ 1.0 for each simultaneous transmission configuration.

1. EAS RF Transmitters

Per Section 6 of this Report EFTA26050097-IE-10-M1V3:

The Maximum MPE Ratio=**0.00000**.

2. USB WIFI Adapter 433Mbps:

Per Test Report STR17058201H:

The Maximum SAR=0.262 W/kg(1g); Max SAR / SAR limit=0.262/1.6=**0.16375**

3. Radax ZERO 3W Wi-Fi and Bluetooth

Per Test Report STS2512337H01, Page 7

The Maximum MPE Ratio=**0.0135**.

4. NFC Card Reader Module:

Per FCC Part 15.225 Test Report RSZ160914001-00, page 18 "Field Strength of Radiated Emissions":

Worst Case field strength reading = 68.5 dBuV/m.

Converting to V/m: = 0.0027 V/m.

Per 47 CFR 1.1310, Table 1, "Limits for MPE", range = 1.34~30MHz.

a. MPE Limit = $824/f$, where f is in MHz

b. $824/13.56 = 60.77 \text{ V/m}$

So, The Maximum MPE Ratio = $0.0027/60.77$ = **0.00004**.

The TER of transmitter MPE/SAR Ratios:

TER= (0.0000) + (0.16375) + (0.01350) + (0.00004) = **0.17729**.

Since The TER=0.17729 < 1.0, this product is compliant.

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

*****END OF REPORT *****